

- 1. What is the purpose of an Integrated Development Environment (IDE)?**
 - a. “software application that provides a comprehensive set of tools and features to facilitate software development. It serves as a centralized platform where programmers can write, edit, compile, debug, and manage their code, all within a single interface.”
- 2. Which popular Python library is specifically designed for numerical and scientific computing?**
 - a. Numpy
- 3. What is the purpose of the pandas library in Python?**
 - a. To facilitate data analysis and manipulations via Python
- 4. Name the deep learning framework developed by Google.**
 - a. TensorFlow
- 5. Which Python library is commonly used for data visualization?**
 - a. Matplotlib
- 6. What is the main purpose of the stats module in the SciPy library?**
 - a. “dedicated to statistical analysis and offers a wide range of statistical functions, probability distributions, and statistical tests. It provides a robust foundation for performing statistical analyses and hypothesis testing. The stats module includes functions for descriptive statistics, such as mean, median, variance, and standard deviation, as well as probability distributions like normal, exponential, and binomial distributions.”
- 7. Name the popular Python library that offers a flexible and dynamic computational graph**
 - a. Matplotlib
- 8. Which integrated development environment (IDE) is known for its interactive web-based interface and support for multiple programming languages?**
 - a. Jupyter Notebook
- 9. Which IDE is developed by JetBrains and offers a wide range of tools and features specifically for Python development?**
 - a. PyCharm
- 10. What is the purpose of Google Colab?**
 - a. Allows for users to write code online and supports collaboration
- 11. Which Python library is used for machine learning and offers a wide range of algorithms and tools?**
 - a. Colab
- 12. What is the purpose of the TensorFlow library?**
 - a. “provides a comprehensive platform for building and deploying machine learning models. It is designed to handle complex numerical computations and large-scale datasets efficiently.”
- 13. Name the lightweight and highly customizable IDE that gained popularity among Python developers.**
 - a. VS Code
- 14. Which Python library is specifically designed for scientific computing and data analysis?**
 - a. Spyder

- 15. Which library provides a MATLAB-like interface and is designed for scientific computing with Python?**
- a. Spyder